IN THE CLAIMS

1-11. (cancelled)

12. (currently amended) The method of claim ~~11~~23, wherein the speed at which the vehicle stabilizes is less than or equal to 30 miles per hour.

13. (currently amended) The method of claim ~~11~~23, wherein the speed at which the vehicle stabilizes is less than or equal to 20 miles per hour.

14-17. (cancelled)

18. (withdrawn) A motor vehicle, comprising:

(a) a heat engine,

(b) at least one electric machine with a static energy converter, and

(c) a super-capacitor for supplying and storing energy, connected to the electric machine via a reversible DC-DC converter.

19. (withdrawn) The motor vehicle of claim 18, wherein said DC-DC converter comprises two transistors.

20. (withdrawn) The motor vehicle of claim 18, wherein said DC-DC converter comprises two resonance converters.

21. (withdrawn) The motor vehicle of claim 20, wherein the super-capacitor is connected between the two resonance converters.

22. (cancelled)

23. (new) A method for transmitting power to wheels of a motor vehicle with an internal-combustion engine and an electric machine connected to a static energy converter with terminals and at least one power semiconductor, the method comprising:

recuperating and storing kinetic energy of the motor vehicle in a super-capacitor;

shutting down the internal-combustion engine of the motor vehicle when the speed of the motor vehicle stabilizes;

using the stored energy in the super-capacitor to supply power to the wheels when the speed of the vehicle is stabilized; and

controlling voltage at the terminals of the static energy converter in order to keep the voltage substantially constant and near to a maximum value allowed by the at least one power semiconductor of the static energy converter.

24. (new) A method for transmitting power to wheels of a motor vehicle with an internal-combustion engine and an electric machine connected to a static energy converter with terminals and at least one power semiconductor, the method comprising:

recuperating and storing kinetic energy of the motor vehicle in a super-capacitor;

shutting down the internal-combustion engine of the motor vehicle when the speed of the motor vehicle stabilizes;

using the stored energy in the super-capacitor to supply power to the wheels when the speed of the vehicle is stabilized;

controlling voltage at the terminals of the static energy converter in order to keep the voltage substantially constant and near to a maximum value allowed by the at least one power semiconductor of the static energy converter; and

maintaining the voltage at the terminals of the static energy converter at a reference value U_{ref}, equal to:

$$U_{ref}=MIN[(U_1-\lambda.1);MAX(U_2;\ (U_3/k))]$$

where: U_1 is a withstand voltage of the power semiconductors;

$\lambda.1$ is an over-voltage at the terminals of the power semiconductors, 1 being a current passing through the electric machine;

U_2 is the difference between U_1 and a maximum over-voltage at the terminals of the power semiconductors;

U_3 is the voltage at the terminals of the electric machine; and

k is a constant coefficient referred to as the PWM coefficient (Pulse Width Modulation).

25. (new) A method for transmitting power to wheels of a motor vehicle with an internal-combustion engine and an electric machine connected to a static energy converter with terminals and at least one power semiconductor, the method comprising:

recuperating and storing kinetic energy of the motor vehicle in a super-capacitor;

shutting down the internal-combustion engine of the motor vehicle when the speed of the motor vehicle stabilizes;

using the stored energy in the super-capacitor to supply power to the wheels when the speed of the vehicle is stabilized;

controlling voltage at the terminals of the static energy converter in order to keep the voltage substantially constant and near to a maximum value allowed by the at least one power semiconductor of the static energy converter; and

keeping the voltage at the terminals of the static energy converter between two limit values, the first corresponding to U_2 and the second corresponding to $(U_1-\lambda.1)$, where:

U_1 is a withstand voltage of the power semiconductor;

$\lambda.1$ is an over-voltage at the terminals of the power semiconductors, 1 being the current passing through the electric machine; and

U_2 is the difference between U_1 and the maximum over-voltage at the semiconductors.

26. (new) A method for transmitting power to wheels of a motor vehicle with an internal-combustion engine and an electric machine connected to a static energy converter with terminals and at least one power semiconductor, the method comprising:

recuperating and storing kinetic energy of the motor vehicle in a super-capacitor;

shutting down the internal-combustion engine of the motor vehicle when the speed of the motor vehicle stabilizes;

using the stored energy in the super-capacitor to supply power to the wheels when the speed of the vehicle is stabilized;

controlling voltage at the terminals of the static energy converter in order to keep the voltage substantially constant and near to a maximum value allowed by the at least one power semiconductor of the static energy converter; and

maintaining the voltage at the terminals of the static energy converter at a reference value U_{ref}, equal to:

$$U_{ref}=MIN[(U_1-\lambda.1);MAX(U_2;\ (U_3/k))]$$

where: U_1 is a withstand voltage of the power semiconductors;

$\lambda.1$ is an over-voltage at the terminals of the power semiconductors, 1 being a current passing through the electric machine;

U_2 is the difference between U_1 and a maximum over-voltage at the terminals of the power semiconductors;

U_3 is the voltage at the terminals of the electric machine; and

k is a constant coefficient referred to as the PWM coefficient (Pulse Width Modulation);

wherein controlling the voltage at the terminals further comprises keeping the voltage at U_2, that being the difference between U_1, the withstand voltage of the power semiconductors, and the maximum over-voltage at the terminals of the semiconductors.